

Louisville Grain Elevator Base Cost				
Description	Quantity	Unit	Unit Price	Total
3.1 Site				
Regrade to ensure drainage away from building	211	CY	\$ 6.00	\$ 1,266.00
Remove berm along west elevation (cut & fill on site)	50	CY	\$ 6.00	\$ 300.00
Install perimeter drain	250	LF	\$ 21.00	\$ 5,250.00
Remove 3 trees (2 on the north & 1 on the east)	3	EACH	\$ 250.00	\$ 750.00
3.2 Foundations				
Procure Geotechnical Engineer's Report for site	1	LS	\$ 2,500.00	\$ 2,500.00
Excavate around entire perimeter of site to access work	628	CY	\$ 8.00	\$ 5,024.00
Infill perimeter basement wall to Sections 1, 2, & 3	33	CY	\$ 750.00	\$ 24,750.00
Concrete	14	CY	\$ 750.00	\$ 10,500.00
Add counterforts & augment perimeter basement footing at Sections 1, 2, & 3	5	CY	\$ 2,670.00	\$ 13,350.00
Add 4 spread footings to Section 3 (below timber posts along grid 3 and grid 4)	1	CY	\$ 850.00	\$ 850.00
Add 2 square footings to Section 3 (at ends of shear wall along grid 3 to resist overturning forces)	1	CY	\$ 850.00	\$ 850.00
Infill basement pit with flowfill	17	CY	\$ 150.00	\$ 2,550.00
Repair deteriorated bin walls below grade, add impervious waterproofing membrane; reinforce wall with PT lumber if required	17	CY	\$ 750.00	\$ 12,750.00
Add perimeter basement wall to Section 5	9	CY	\$ 850.00	\$ 7,650.00
Add strip footing to Section 5	above	CY	above	above
Allowance for footing augmentation where allowable bearing capacity exceeded or net tension due to shearwall overturning forces	1	LS	\$ 15,000.00	\$ 15,000.00
3.3 Building Structural System				
Section 1				
1st Floor: Remove abandoned stair; re-frame floor around stair opening	15	SF	\$ 25.00	\$ 375.00
Roof: Remove roof sheathing; sister rafters, add plywood sheathing	370	SF	\$ 15.00	\$ 5,550.00
Section 2				
2nd Floor: Remove fire damaged floor joists which have a very low calculated load-carrying capacity. Replace with new more robust joists spanning east-west bearing on exterior walls and on one timber beam spanning north-south across center of bay.	400	SF	\$ 20.00	\$ 8,000.00
Roof: Remove roof sheathing, rafters, and 2 dropped purlins; Add new sheathing, rafters, and purlins	660	SF	\$ 20.00	\$ 13,200.00
Replace 100% of 2nd floor wall framing due to char damage	1375	SF	\$ 6.00	\$ 8,250.00
Section 3				
Add 1 timber post from 3rd floor to basement wall on grid 3 and grid 4 to support 3rd floor timber beams near midspan	19	LF	\$ 30.00	\$ 570.00
6th Floor Mezzanine: Add 2 strongbacks to north gable end wall at floor diaphragm elevation to brace wall studs at hinge	20	LF	\$ 30.00	\$ 600.00
Roof: Remove roof sheathing, rafters, and 2 dropped purlins; Add new sheathing, rafters, and purlins	750	SF	\$ 20.00	\$ 15,000.00
Section 4				
Wood scientist for one day to quantify extent of bin wall and bin floor deterioration by resistance boring after excavation complete	1	LS	\$ 1,500.00	\$ 1,500.00
Roof: Remove roof sheathing; leave existing rafters; add rafters @ 24" between existing rafters; enhance connections; strengthen 2 dropped purlins; add plywood sheathing	1330	SF	\$ 20.00	\$ 26,600.00
Section 5				
1st Floor: Shore floor to reset dropped girders on new posts on new footings or on new stem wall	3	Places	\$ 1,000.00	\$ 3,000.00
Roof: Remove roof sheathing; sister rafters in north bay, add plywood sheathing, add hurricane ties on ends of rafters	935	SF	\$ 20.00	\$ 18,700.00
Roof: Anchor existing ledger on grid 4 to bin wall	30	LF	\$ 10.00	\$ 300.00
Roof: Shore rafters, remove and replace existing overstressed girder with steel beam or equivalent	28	LF	\$ 101.25	\$ 2,835.00
Sections 1, 2, 3, & 5; Lateral Force Resisting System				
Miscellaneous drag strut and collector elements. Will drag some force into existing bin walls in order to minimize number of new wood shear walls	1	LS	\$ 1,000.00	\$ 1,000.00

All Sections, Floor Framing				
Allowance to remove and replace structural elements affected by fire. Includes damaged elements requiring replacement and structurally acceptable elements to be replaced for aesthetic or odor reasons. (100% of 3rd floor framing, 30% of 4th floor framing, 100% of 6th floor framing)	525	SF	\$ 25.00	\$ 13,125.00
Allowance for miscellaneous structural repairs and unknown conditions	1	LS	\$ 15,000.00	\$ 15,000.00
3.4 Exterior Wall Construction & Envelope				
Structural Recommendations				
Section 3				
Replace existing studs damaged by fire	80	EACH	\$ 18.00	\$ 1,440.00
Add strongbacks to lines 3, A, Z at sixth floor	50	LF	\$ 80.00	\$ 4,000.00
Section 4				
Cut small openings in bin walls for needle beam shoring. Shore bin walls, remove deteriorated stacked-plank lumber with demo saw. Tooth in Douglas-Fir 2x6 plies and attach plies with adhesive and toenails from each side. Correct smaller defects with epoxy consolidant	3	EACH	\$ 5,163.33	\$ 15,490.00
Section 5				
Sister tall studs along grids A & Z	16	EACH	\$ 18.00	\$ 288.00
Sections 1, 2, 3, & 5; Basement Stud Walls				
Replace deteriorated or damaged interior sills and plates on gridlines 2 and 3	12	LF	\$ 35.00	\$ 420.00
Sections 1, 2, 3, & 5; Lateral Force Resisting System				
Selectively sheath existing stud walls to use as wood shear walls; add blocking, holdowns, and anchors into existing foundation.	1166	SF	\$ 3.00	\$ 3,498.00
Architectural Recommendations				
Remove and replace wood shiplap siding	920	SF	\$ 8.00	\$ 7,360.00
Remove and replace wood tongue and groove siding	2100	SF	\$ 8.00	\$ 16,800.00
Remove lead containing paint from exterior of building	6482	SF	\$ 2.00	\$ 12,964.00
Repaint exterior of building	6482	SF	\$ 1.50	\$ 9,723.00
Repaint historic sign on exterior of building	550	SF	\$ 8.00	\$ 4,400.00
3.5 Envelope - Roofing & Waterproofing				
Remove current roofing - corrugated sheet metal & asphalt shingles	3880	SF	\$ 1.00	\$ 3,880.00
Install Berridge corrugated metal roof	3880	SF	\$ 4.00	\$ 15,520.00
Install snow guards on the east and west edges of Sections 2, 3 & 4	120	LF	\$ 15.00	\$ 1,800.00
3.6 Windows & Doors				
Restore all windows				
Reconstruct eight lite double hung wood windows and frames to match original (2'x5')	6	windows	\$ 900.00	\$ 5,400.00
Reconstruct eight lite double hung wood windows to match original - epoxy stabilize existing frames (2'x5')	3	windows	\$ 900.00	\$ 2,700.00
Reconstruct four lite fixed wood window (approx. 2'x2')	1	window	\$ 360.00	\$ 360.00
Reconstruct four lite fixed wood window (approx. 2'x3')	2	windows	\$ 540.00	\$ 1,080.00
Reconstruct two lite double hung window (8"x5')	1	window	\$ 350.00	\$ 350.00
Restore all doors				
Replace 50% of the wood on the sliding doors (6'x7')	3	doors	\$ 945.00	\$ 2,835.00
Sand and refinish 4 panel wood doors	2	doors	\$ 250.00	\$ 500.00
Replace 50% of the wood boards composing exterior doors (3'x7')	4	doors	\$ 472.50	\$ 1,890.00
Remove, wire brush and oil all hardware that remains	3	sets	\$ 85.00	\$ 255.00
Install hardware to match historic	3	sets	\$ 235.00	\$ 705.00
New hinges and track for sliding door to match original (2 hinges, 1 overhead track 7' long)	3	sets	\$ 700.00	\$ 2,100.00

3.7 Interior Finishes				
Replace char damaged wood not covered in previous sections	1	lump sum	\$ 25,000.00	\$ 25,000.00
Replace 100% of floor boards in Sections 1,2,3 & 5 (varies from 1"x6" or 1"x8" or 1 1/2" x 10)	3286	SF	\$ 4.00	\$ 13,144.00
Remove non-historic stair from 1st to 2nd floor & install new stair	1	lump sum	\$ 1,500.00	\$ 1,500.00
Reinstall stairs on 2nd - 6th floors after new flooring is installed	4	sets	\$ 500.00	\$ 2,000.00
Media blast all wood surfaces in the building (optional, not in total)	24372	SF	\$ 2.50	\$ 60,930.00
3.8 Mechanical Systems				
NA				
3.9 Electrical Systems				
NA				
General Conditions				
Assumed 90 Day Duration	3	MO	\$ 15,000.00	\$ 45,000.00
Subtotal Hard Construction Costs				\$ 439,347.00
Bond (1.5%)				\$ 6,590.21
Builder's Risk Insurance				\$ 1,318.04
Permits & Plan Review				\$ 6,590.21
Subtotal Construction Costs				\$ 453,845.45
Contractor Overhead & Profit (15%)				\$ 68,076.82
Subtotal				\$ 521,922.27
Contingency (during design) - 5%				\$ 26,096.11
Subtotal				\$ 548,018.38
A&E fees (10%)				\$ 54,801.84
Subtotal				\$ 602,820.22
Owner Contingency (for construction) - 10%				\$ 60,282.02
Total Construction Costs				\$ 663,102.24
Hazardous material mitigation - plan development and mitigation work per report in HSA Appendix				\$ 21,281.25
Total Costs				\$ 684,383.49